AUTHOR INDEX

Adachi K. 543
Agnati L. F. 159, 165, 179, 499
Akizuki K. 149
Althaus H.-H. 111
Andersson K. 159
Arbonés L. 97
Arner K. 307
Asai H. 509

Barkai A. I. 319
Baudier J. 149
Becker C.-M. 137
Beeler J. F. 333
Betz H. 137
Bhat S. 487
Birman S. 199
Boiron-Sargueil F. 359
Bourre J. M. 429
Botez M. I. 379
Bradford H. F. 119
Braestrup C. 21
Bürgisser P. 111

Cassagne C. 359
Chader G. J. 81
de Chaffoy de Courcelles D. 409
Chandrasekhar R. 63
Charli J.-L. 237
Che-Hui Kuo 153
Cholewinski A. J. 393
Cintra A. 165, 179, 499
Cole G. M. 149
Cole R. D. 149
Creutz C. E. 149
Cross A. J. 89
Cruz C. 237

Daune G. 383
De Robertis E. 1
Devilliers G. 463
Djamgoz M. B. A. 439
Docherty M. 119
Dolly J. O. 25
Dreyfus P. A. 231, 327

Ebadi M. 223, 525
Ehinger B. 307
Eller M. 419
Eneroth P. 159, 165, 499
Evans D. M. 25

Faudon M. 455
Fine A. 25
François-Bellan A. M. 455
Fry J. P. 17
Fujii T. 509
Fuxe K. 159, 165, 179, 499

Garattini S. 345
Garcia A. 97
Garcia L. 231, 327
García-Verdugo J. 97
Gebicke-Haerter P. J. 475
Ghazi H. 397
Gluck J. P. 353
Gobbi M. 345
Gödlicke C. 481
Goldstein M. 165, 179, 499
Govitrapong P. 223
Grimaldi R. 499
Guiramand J. 463

Hamon M. 13
Hansson E. 105, 557
Härfstrand A. 159, 165, 179
Harris W. E. 369
Heape A. 359
Helmkamp Jr G. M. 531
Hertting G. 475
Héry F. 455
Héry M. 455
Heyes M. P. 405
Hillmann M. 69
Homayoun P. 429
Hsueh-Meei Huang 63
Hutto B. 405

Inn Soo Kang 469
Israël M. 199, 207
Iwashita T. 75

Järv J. 419
Joseph-Bravo P. 237
Joyal C. 379
Juguelin H. 359

Kalin N. H. 353
Keresztury M. F. 353
King T. S. 469
Knapp S. 549
Kondo Y. 509

Lal Kapoor C. 81
Lalonde R. 379
Lehmann A. 105, 557
Lesbats B. 199
Lewis M. H. 353
Leysen J. E. 409
Ling Lee 81

Manaranche R. 199, 207
Markey S. P. 405
Martin I. L. 17
Martin W. H. 149
Mason W. T. 25
Medina J. H. 1

Mennini T. 345
Merwin M. 549
Mikaelyan M. V. 435
Miki N. 153
Miyasaka Y. 509
Morel N. 199, 207
Mukoyama M. 543
Murthy L. R. 319

Nagatsu T. 75
Nalbandyan R. M. 435
Naoi M. 75
Neuhoff V. 111
Nicolet M. 231, 327
Nishio H. 217
Nomura Y. 37
Nourigat A. 463
Nussbaum F. 43
Nussbaum J. L. 43

Ogawa Y. 493
Ogita K. 493
Ohsugi K. 543
Ollat H. 275
Osborne N. N. 397, 517

Paladini A. C. 1
Paliwal V. K. 525
Pari F. M. 43
Parvez H. 275
Parvez S. 275
Pauwels P. J. 409
Peña C. 1
Perez R. 307
Perry E. K. 89
Perry R. H. 89
Picatoste F. 97
Pujol J. F. 449

Recasens M. 463
Rieger F. 231, 327
Richardson P. J. 25
Rohmann A. 111
Roussel G. 43

Sanne J.-L. 243
Sassetti I. 463
Sato C. 53
Scarna H. 243
Schliebs R. 481
Schneider V. A. 353
Schobert A. 475
Segawa T. 217
Seiler N. 383
Seregi A. 475
Shanley B. C. 69
Shelton S. E. 353
Silberberg D. H. 487

Slater P. 89
Snyder S. H. 147
Sogabe H. 217
Somers R. L. 81
Stahl W. L. 369
Sternberg H. 149
Sun G. Y. 63
Suzuki T. 53

Taddei C. 345
Takahashi T. 525
Tanaka R. 53
Thereza M. 307
Timiras P. S. 149
Tipton K. F. 301
Tobin A. B. 517
Tohda M. 37

Vanderhaeghen J. J. 499
Van Gompel P. 409
Vargas M.-A. 237
Venuti S. E. 531
Verdière-Sahuqué M. 231, 327

Wiggert B. 81
Wilce P. A. 69
Wilkin G. P. 393
Wilson S. P. 333

Yamagata K. 153
Yoneda Y. 493

Zoli M. 165, 499
Zyzek E. 449

SUBJECT INDEX

Acceptor: for botulinum toxin 25
Acetoacetate: utilization by
brain capillaries 429
Acetylation: of lysophosphatidyl choline 359
Acetylcholine release 199
Acetylcholinesterase: association to lipidic membranes 231
association with glycolipid 327
a dimeric form in muscle 327
in mouse skeletal muscle 327
in skeletal muscle 231
Adenylate-muscarinic receptors 517
Adhesion molecules 487
Adrenal medullary cells: in culture 265
Alcohol: and GABAergic transmission 286
and noradrenergic transmission 282
and opioid peptides 290
and serotonergic transmission 284
effect on neurohormone systems 292
effect on neurotransmission 301
relation to neurotransmission 275
Alzheimer-type dementia: changes in serotonin receptors 89
Amino acid analogs: effect on astroglial cultures 105
Amino acids: release from astroglial cultures 557
Antiserum: to mediatophore 207
Arachidonate: incorporation into brain phospholipids 319
Arachidonate incorporation: involvement of deacylation and reacylation 319
Arachidonate metabolism: effect of neurotransmitters 319
Arylakylamine N-acetyl-transferase: inhibition of pineal gland 223
Astrocytes: cultured in high and low serum media 393
Astrocytes in culture: effect of bradykinin 393
effect of vasopressin 393
Astroglial cultures: effect of excitatory amino acid analogs 105
effect of kainate on amino acid release 557
ATPase activity: enhanced by tubulin and Ca^{2+} in MAPS 509
Autoradiography: of serotonin receptors 89

Benzodiazepines: effect on catecholamine release 265
Benzodiazepine-like molecules: in brain 3
Benzodiazepine receptors 1
endogenous ligands 13, 17, 21
effect of ethanol 69
ligands 21
peptides 21
β-carbolines 21
Binding: of botulinum toxin to brain slices 28
of D_1-receptor antagonists 179
of [^{3}H]mepyramine 98
of radioactive α-fenfluramine 345
Biopterin: diurnal levels 549
subcellular distribution 549
Botulinum toxin: acceptors 25
binding to brain slices 28
Bradykinin: stimulate phosphoinositide turnover but not [^{3}H]thymidine incorporation in astrocytes 393
N-Butyl-β-3-carboline-3-carboxylate inhibitors of benzodiazepam binding sites 5

Calcium mobilization: in retinal cells 397
use of Quin2/AM 398
Capillaries: isolated from developing brain 429
utilization of acetoacetate, glucose and D-3-hydroxybutyrate 429
β-Carbolines: inhibitors of benzodiazepam binding sites 5
ligands of benzodiazepines 21
Catecholamine: depletion and accumulation in chromaffin cells 333
release influenced by benzodiazepine 265
Catecholamine accumulation: effect of MPP^+ 333
effect of MPTP 333
Catecholamine depletion: 333
effect of MPP^+ 333
effect of MPTP 333
Chicken neurotropic factor: isolation and characterization 156
Chloride channel protein: of glycine receptor 137
4-Chloro-3-hydroxyanthranilate: inhibits brain 3-hydroxyan thranilate oxidase 405
Choline acetyltransferase: effect of forskolin 37
effect of TPA 37
dibutyryl C-AMP 37
in synaptosomes 119
membrane bound forms in synaptosomes 119
Cholinergic gangliosides: 25
Chromaffin cells: catecholamine depletion and accumulation 333
Chromobindin A 149
Cisternal cerebrospinal fluid: monoamine concentration 353
[^{3}H]clonidine binding: to visual cortex 487
Copper-containing protein in brain 435
Cytosolic calcium: mobilized by receptors linked to phospholipase C 397

D_1 dopamine receptors 159
action on nicotine release of noradrenaline 159
in medium eminence 165
involvement in regulation of LHRH release 165
D_1 receptor antagonists: binding studies 179
DARPP-32: C-AMP regulated phosphoprotein 32
immunoreactivity—in median eminence 165
Deacylation: and arachidonate incorporation 319
Desensitization of 5-HT_2 receptors 409
[^{3}H]desimipramine binding: to visual cortex 483
N-Desmethyldiazepam: in brain 4
Developing brain: isolation of brain capillaries 429
Diazepam binding inhibitor 2
Dibutyrylic-AMP: effect on neurochemistry and morphology of NG108-15 cells 37
[^{3}H]dihydroalprenolol binding: to visual cortex 483
5,7-Dihydroxytryptamine: effect on serotonin system 251
Dopaminergic receptors: relationship with dopaminergic terminals 179
Dopaminergic terminals: relationship with dopaminergic receptors 179
Dopaminergic transmission: effect of ethanol 279
[^{3}H]DPAT binding: autoradiography 90

Ectoenzyme: pyroglutamate amino peptidase II 237
Electric organs: localization of mediatophore 207
Endozepines 2
Enzymoimmunoassay: of γ enolase 243
Estrogen/primed: ovariectomized rat 489

Ethanol: action on GABA/benzodiazepine receptor 69
and dopaminergic transmission 279
Excitotoxins: effect on astroglial cultures 105

Fatty acid probes: studies on synaptosomes 369
[^{3}H]α-fenfluramine: stereospecific binding to rat brain 345
Fluorescent fatty acid probes: studies in synaptosomes 369
5-Fluoromethylornithine: ornithine aminotransferase inhibitor 383
Forskolin: effect on neurochemistry and morphology of NG108-15 cells 37

GABA: control of serotonergic metabolism 455
interrelationship with ornithine and glutamate 383
GABA/benzodiazepine receptor in RNA 449
GABA receptor: effect of ethanol 69
GABAergic transmission: effect of alcohol 286
Galanin immunoreactivity: effect of uridine treatment 501
γ Enolase: enzymoimmunoassay 243
monoclonal antibodies 243
Ganglioside GMI: effect on serotonin system 251
Glucose: utilization by brain capillaries 429
Glutamic acid: inhibits arylalkylamine N-acetyltransferase 223
Glutamate: effect on extracellular potassium activity 439
interrelationship with ornithine and GABA 383
[^{3}H]glutathione binding: distribution in tissues 493
to CNS and PNS 493
Glycine receptor: molecular biology 141
Glycine receptor: pharmacology 138
physiology 138
structure 137
Glycolipid: association with acetylcholinesterase 327
Glycoproteins: 53 kDa 43
uptake by synaptosomes 75
Glycosylated β-galactosidase: uptake with synaptosomes 75
GnRH: release by progesterone hypothalamus 469
serotonin influences release 469

5-HIAA brain levels: effect of phenytoin 379
Histamine: in retina 97
HPLC: separation of MPTP and MPP$^+$ 335
5-HT brain levels: effect of phenytoin 379
5-HT$_2$ receptors: desensitization in cultured aortic smooth muscle cells 409
3-Hydroxyanthranilate oxidase: inhibited by 4-chloro-3-hydroxyanthranilate 405
D-3-Hydroxybutyrate: utilization by brain capillaries 429
5-Hydroxyindole acetic acid levels: postnatal development 252
Hypothalamus: release of GnRH 469

Immobilization stress: effect on pipecolic acid transport 217
Inositol phosphates: linked to quisqualate receptor 463
turnover in ischaemia 63
Interphotoreceptor matrix 81
Interphotoreceptor retinoid binding protein: phosphorylation 81
Iris/ciliary body: muscarinic receptors 517
Ischaemia: action on polyphosphoinositides 63
turnover of inositol phosphates 63

Kainate: releases amino acids from astroglial cultures 557
stimulation of amino acid release 557
53 kDa antiserum: marker for oligodendrocytes 47
53 kDa glycoprotein: in oligodendrocytes 43
surface antigen 43
Ketone bodies: utilization by brain capillaries 429
[^{3}H]ketanserin binding: autoradiography 90

LHRH immunoreactivity: of median eminence 165
LHRH release: involvement of D_1 receptors 165
Lipid synthesis: in cultures 111
in oligodendrocytes 111
Lysophosphatidylcholine: 359
acetylation in microsomes 359

MAO: effect of neurotransmitters 319
MAP1 related proteins 57
MAP2 related proteins 57
MAPS: ATPase activity enhanced by tubulin and Ca^{2+} 509
ATPase activity influenced by S-100 protein 509
MAPS = microtubule: associated proteins
Median eminence: D_1 dopamine receptors 165
Mediatophore: delipidification 199
immulogical detection 207
lipid requirement 199
translocates acetylcholine 199
[^{3}H]mepyramine binding: to retinal membranes 98
Metallothionein-like protein: in retina 525
Microtubule associated proteins 53
Mismatches: of D_1 receptors and dopaminergic terminals 179
Monoamine metabolites: in cisternal cerebrospinal fluid 353
Monoamines: in spinal cord in patients with multiple system atrophy 543
Monoclonal antibodies: to γ enolase 243
MPP$^+$: effect on catecholamine's depletion and accumulation 333
= 1-methyl-4-phenylpyridinium 333
separation from MPTP by HPLC 335
MPTP: effect on catecholamine depletion and accumulation 333
= 1-methyl-4-phenyl-1,2,3,6 tetrahydropyridine
separation from MPP$^+$ by HPLC 335
Müller cell cultures 397
Multiple system atrophy: monoamine levels in spinal cord 543
Muscarinic receptors: in iris/ciliary body 517
L-Quinuclidinyl benzilate interactions 419

NCAM: antibodies 487
NCAM molecules: in human brain 487
Neurite outgrowth: effect of forskolin, TPA and dibutyryl C-AMP 37
Neurohormone systems: effect of alcohol 292
Neuropeptide immunoreactivities: effect of uridine treatment 499
Neuropeptide Y immunoreactivity: effect of uridine treatment 501
Neurotransmission: and alcohol 301
effect of alcohol 275

Neurotransmitters: effects on arachidonate metabolism 319
metabolism by MAO 319
Neurotrophic factor: from chicken neurones 153
NG108-15 cells: effect of phorbol ester, forskolin and dibutyryl C-AMP 37
Nicotine: release of noradrenaline 159
Nicotine treatment: releases noradrenaline 159
Noradrenaline: markers in the visual cortex 481
Noradrenaline release: involvement of nicotine 159
Noradrenergic system: of hypothalamus and preoptic region 159
Noradrenergic transmission: effect of ethanol 282

Oligodendrocytes: from adult pig brain 111
lipid synthesis 111
Ouabain binding: to synaptosomes 119
Opioid peptides: effect of alcohol 290
Ornithine: interrelationship with glutamate and GABA 383
Ornithine aminotransferase activity: resistant to 5-fluoromethylornithine 383
Ovariectimized rat: estrogen primed 469

Peptides: ligands of benzodiazepines 21
Phenytoin: effect on 5-HT and 5-HIAA levels in rats 379
interactions with synaptosomes 369
Phorbol ester: effect on neurite outgrowth 37
Phosphatidylcholine: synthetic and intermembrane transfer activities 531
Phosphatidylinositol: synthetic and intermembrane transfer activities 531
Phosphoinositide metabolism: in astrocytes in culture 393
Phosphoinositide-specific PLC: activation 397
Phospholipid: synthesis and transfer in brain areas 531
incorporation of arachidonate 319
Phosphorylation: of interphotoreceptor retinoid binding protein 81
Pipecolic acid: transport 217
Pipecolic acid transport: effect of immobilization stress 217
PLC = phospholipase C
Polyphosphoinositide: effect of ischaemia 63
Potassium: activity in retina 439
[^{3}H]prazosin binding: to visual cortex 482
Progesterone: stimulation of GnRH from hypothalamus 469
Prostaglandin D_2 synthesis: in cultured astrocytes 475
involvement of protein kinase C 475
Protein: a novel copper containing form 435
Protein kinase C: involvement in prostaglandin synthesis 475
Purines: release from retina 307
Pyroglutamate amino peptidase II: ectoenzyme 237

Quin2/AM: use for calcium detection 398
L-Quinuclidinyl benzilate: interaction with muscarinic receptors 419
Quisqualate receptor: linked to inositol phosphate production 463
new type 463

Reacylation: and arachidonate incorporation 319
Receptors: GABA/benzodiazepine type 449
glycine type 137
quisqualate type 463
benzodiazepine 1
benzodiazepine type 13, 17, 21
muscarinic type 419, 517
serotonin type 89
Retina: effect of glutamate 439
histaminergic components 97
of cyprinid fish 439
a release of purines 307
subcellular distribution of zinc 525
zinc binding protein 525
Retinal cultures: 397
mRNA: injection into *Xenopris* oocytes 449
GABA/benzodiazepine receptor 449

Second messenger: muscarinic receptors negatively linked to adenylate 517
Serotonergic transmission: effect of alcohol 284
Serotonin: metabolism controlled by GABA 455
role in release of GnRH 499
[^{3}H]serotonin binding: autoradiography 90
Serotonin levels: postnatal development 252
Serotonin receptors: in Alzheimer-type dementia 89
in human temporal cortex 89
Serotoninergic systems: effect of GM1 ganglioside 251
= serotonergic systems
Shambling mice: alteration in Substance P levels 261
alteration in TRH levels 261
mutant 261
Somatostatin immunoreactivity: effect of uridine treatment 501
Spinal cord: monoamine levels 543
S-100 protein: action on ATPase activity in MAPS 509
Stearoyl-CoA: [1-palmitoyl]glycerophosphonylcholine transacylase activity—in sciatic nerve 359
Stress: action on pipecolic acid transport 217
Subcellular distribution: of biopterin 549
Substance P: levels in shambling mice 261
Suprachiasmatic area: serotonin/GABA interactions 455
Synaptic junction proteins: 57
MAP1 and MAP2 57
Synaptoneurosomes: presence of quisqualate receptors 463
Synaptosomes: binding of ouabain 122
choline acetyltransferase 119
interaction with phenytoin 369
uptake of glycosides 75
uptake of glycosylated β-galactosidase 75

Tailed acetylcholinesterase: in skeletal muscle 231
Tan protein 149
12-*O*-tetradecanoylphorbol 13-acetate (TPA): effect on NG108-15 cells 37
Trembler mouse: acetylation of lysophosphatidylcholine in peripheral microsomes 359
TRH: concentration in shambling mice 261
metabolism by pyoglutamate amino peptidase II 237
= thyrotropin releasing hormone
Tubulin: enhances MAPS ATPase activity 509

Tyrosine hydroxylase immunoreactivity: effect of uridine treatment 499
in various brain areas of rat 179
of median eminence 165

Uridine: effect on neuropeptide and tyrosine hydroxylase immunoreactivities 499

Vasopressin: stimulates phosphoinositide turnover but not [^{3}H]thymidine incorporation in astrocytes 393
Visual cortex: binding of
[^{3}H]desimipramine
[^{3}H]clonidine
[^{3}H]prazosin
[^{3}H]dihydroalprenolol
[^{3}H]WB 4101 483
noradrenergic markers 481

[^{3}H]WB4101 binding: to visual cortex 483

Xenopis oocytes: injection of mRNA 449

Zinc: subcellular distribution in retinas 525
Zinc binding protein: in retinas 525

PRINTED IN GREAT BRITAIN BY A. WHEATON & CO. LTD. EXETER